

LISTING OF THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Currently Amended) A barrel-shaped bearing comprising:
an external bearing ring, and an internal bearing ring inward of the external ring;
at least one row of barrel-shaped rolling bodies arranged between the external and internal rings, each rolling body of the at least one row of barrel-shaped rolling bodies[[,]] having opposite ends and an encircling groove in ~~into~~ and extending around the rolling body between the ends thereof;

at least one disk-shaped cage between the rings positioned and configured to revolve ~~which revolves~~ together with the rolling bodies, the cage ~~engages~~ engaging [[in]] the encircling grooves of the rolling bodies of one row, the cage having an outer circumference, including a ~~number~~ plurality of recesses therein corresponding to the number of rolling bodies in the row, the inner ring having a running surface toward the rolling bodies, and the entire running surface of the internal ring ~~has~~ having a concave cross section extending axially over the entire axial length of the rolling bodies;

~~the~~ each recess of the plurality of recesses in the cage being of such depth and so shaped as to have two opposed sides such that the smallest distance between the two opposed sides of a recess of the disk-type cage is smaller in the region of the outer circumference of the cage than a diameter of a rolling body in the region of the groove encircling the rolling body,

wherein the two opposed sides of each recess of the disk-type cage in the region of the outer circumference of the cage converge in the radial direction.

2. (Currently Amended) The barrel-shaped bearing as claimed in claim 1, wherein the maximum radial width b of the annular disk-type cage between the outer circumference and an inner circumferential surface of the cage is greater than half the diameter of [[a]] the rolling body in the region of the groove encircling the rolling body.

3. (Currently Amended) The barrel-shaped bearing as claimed in claim 1, wherein the maximum radial width b of the annular disk-type cage between the outer circumference and an

inner circumferential ~~circle thereof~~ surface of the cage is equal to or greater than the diameter of ~~the~~ rolling body in the region of the groove encircling the rolling body.

4. (Currently Amended) The barrel-shaped bearing as claimed in claim 1, wherein the distance between two adjacent ~~ones of the~~ recesses in the disk-type cage in the region of the outer circumference thereof is greater than ~~the~~ a difference in the maximum diameter of ~~the~~ rolling body minus the diameter of the rolling body in the region of the groove base.

5. (Canceled)

6. (Currently Amended) The barrel-shaped bearing as claimed claim 1, wherein ~~the~~ recess in the disk-type cage is edged by a curve of constant curvature r_s at least in some regions.

7. (Currently Amended) The barrel-shaped bearing as claimed in claim ~~[[1]]~~ 6, wherein the radius of curvature r_s of an edging curve of ~~the~~ recess of the disk-type cage is smaller than a radial width b of the disk-type cage: such that $r_s < b$.

8. (Currently Amended) The barrel-shaped bearing as claimed in claim 1, wherein the encircling groove in the circumferential surface of ~~the~~ barrel-shaped rolling body has mutually parallel side surfaces or has side surfaces that diverge outward from each other.

9. (Currently Amended) The barrel-shaped bearing as claimed in claim 8, wherein the side surfaces of the encircling groove in the circumferential surface of ~~the~~ barrel-shaped rolling body run along conical circumferential surface areas.

10. (Currently Amended) The barrel-shaped bearing as claimed in claim 9, wherein the conical circumferential surface areas of a groove have opening angles ~~of~~ α of more than 170° , so that the side surfaces of ~~the~~ groove enclose an intermediate angle β of less than 20° .

11. (Currently Amended) The barrel-shaped bearing as claimed in claim 9, wherein the conical circumferential surface areas have opening angles α of less than 179° , so that the side surfaces of the groove enclose an intermediate angle β of more than 2° .

12. (Previously Presented) The barrel-shaped bearing as claimed in claim 1, wherein the groove has width b_N at the groove base which corresponds approximately to the thickness d of the disk-type cage.

13. (Previously Presented) The barrel-shaped bearing as claimed in claim 1, wherein the external ring, the internal ring and the rolling bodies have respective cross-sections dimensioned such that a total of three or four contact points with the rings are produced per rolling body.

14. (Previously Presented) The barrel-shaped bearing as claimed in claim 10, wherein the opening angle is more than 175° and the intermediate angle is less than 10° .

15. (Previously Presented) The barrel-shaped bearing of claim 10, wherein the opening angle is more than 178° and the intermediate angle is less than 4° .

16. (New) A barrel-shaped bearing comprising:
an external bearing ring, and an internal bearing ring inward of the external ring;
at least one row of barrel-shaped rolling bodies arranged between the external and internal rings, each rolling body of the at least one row of barrel-shaped rolling bodies having opposite ends and an encircling groove in and extending around the rolling body between the ends thereof;

at least one disk-shaped cage between the rings positioned and configured to revolve together with the rolling bodies, the cage engaging the encircling grooves of the rolling bodies of the at least one row, the cage having an outer circumference including a plurality of recesses, each recess of the plurality of recesses corresponding to each rolling body, the inner ring having a running surface toward the rolling bodies, and the entire running surface of the internal ring having a concave cross section extending axially over the entire axial length of the rolling bodies;

each recess of the plurality of recesses in the cage being of such depth and so configured as to have two opposed sides such that a smallest distance between the two opposed sides of each recess is smaller in the region of the outer circumference of the cage than a diameter of a rolling body in the region of the groove encircling the rolling body,

wherein the recess in the disk-type cage is edged by a curve of constant curvature r_s in at least some regions.

17. (New) A barrel-shaped bearing comprising:

an external bearing ring, and an internal bearing ring inward of the external ring;

at least one row of barrel-shaped rolling bodies arranged between the external and internal rings, each rolling body of the at least one row of barrel-shaped rolling bodies having opposite ends and an encircling groove in and extending around the rolling body between the ends thereof;

at least one disk-shaped cage between the rings positioned and configured to revolve together with the rolling bodies, the cage engaging the encircling grooves of the rolling bodies of one row, the cage having an outer circumference including a plurality of recesses therein, each recess of the plurality of recesses corresponding to each rolling body, the inner ring having a running surface toward the rolling bodies, and the entire running surface of the internal ring having a concave cross section extending axially over the entire axial length of the rolling bodies;

each recess of the plurality of recesses in the cage being of such depth and so shaped as to have two opposed sides such that a smallest distance between the two opposed sides of a recess of the disk-type cage is smaller in the region of the outer circumference of the cage than a diameter of a rolling body in the region of the groove encircling the rolling body,

wherein the opposed side surfaces of the encircling groove in the circumferential surface of the barrel-shaped rolling body run along conical circumferential surface areas.